



# UNIVERSITY OF MARYLAND

OFFICE OF THE SENIOR VICE PRESIDENT AND PROVOST

1119 Main Administration Building  
College Park, Maryland 20742-5031  
301.405.5252 TEL 301.405.8195 FAX

August 28, 2014

## MEMORANDUM

**TO:** Alexander J. Triantis  
Dean, Robert H. Smith School of Business

**FROM:** Elizabeth Beise *EB*  
Associate Provost for Academic Planning and Programs

**SUBJECT:** Proposal to Establish a Master of Science in Marketing Analytics (PCC log no. 13032)

On April 11, 2014, the Board of Regents approved your proposal to establish a Master of Science in Marketing Analytics. On June 17, 2014, the Maryland Higher Education Commission gave final approval. A copy of the proposal is attached.

The program is effective immediately. Please ensure that the change is fully described in all relevant descriptive materials.

MDC/

Enclosure

cc: Gregory Miller, Chair, Senate PCC Committee  
Reka Montfort, University Senate  
Barbara Gill, Office of Student Financial Aid  
Erin Taylor, Division of Information Technology  
Pam Phillips, Institutional Research, Planning & Assessment  
Anne Turkos, University Archives  
Linda Yokoi, Office of the Registrar  
Alex Chen, Graduate School  
Joyce Russell, Robert H. Smith School of Business



**MHEC**

Creating a state of achievement

Martin O'Malley  
Governor

Anthony G. Brown  
Lt. Governor

Anwer Hasan  
Chairperson

Catherine M. Shultz  
Acting Secretary

June 17, 2014

Dr. Mary Ann Rankin  
Provost and Senior Vice President  
Academic Affairs  
University of Maryland, College Park  
1119 Main Administration Building  
College Park, MD 20742-5031

Dear Dr. Rankin:

The Maryland Higher Education Commission has reviewed a request from the University of Maryland, College Park to offer a Master of Science (M.S.) in Marketing Analytics.

I am pleased to inform you that the program proposal is approved. This decision is based on an analysis of the program proposal in conjunction with the law and regulations governing academic program approval, in particular Code of Maryland Regulations (COMAR) 13B.02.03. As required by COMAR, the Commission circulated the program proposal to the Maryland higher education community for comment and objection. The program meets COMAR's requirements and demonstrates potential for success, an essential factor in making this decision.

For the purposes of providing enrollment and degree data to the Commission, please use the following HEGIS and CIP codes:

Program Title	Award Level	HEGIS	CIP
Marketing Analytics	M.S.	0509-01	52.1499

Should the University of Maryland, College Park desire to make a substantial modification to the program in the future, approval from the Commission will be necessary. I wish you continued success.

Sincerely,

Catherine M. Shultz, J.D.  
Acting Secretary of Higher Education

CMS:SAB:ggs

C: Mr. Mike Colson, Senior Coordinator, Academic Program Development, UMCP  
Ms. Theresa Hollander, Associate Vice-Chancellor for Academic Affairs, USM



OFFICE OF THE CHANCELLOR

April 16, 2014

Dr. Wallace Loh  
President  
University of Maryland, College Park  
1101 Main Administration Bldg.  
College Park, MD 21201

Dear Wallace:

This is to officially inform you that the Board of Regents, meeting in public session on Friday, April 11, 2014, at the University of Maryland, Baltimore County, approved for the University of Maryland, College Park the proposal to offer the Master of Science in Marketing Analytics.

The Committee on Education Policy and Student Life, meeting in public session on March 11, 2014, recommended approval.

Sincerely yours,

A handwritten signature in black ink, appearing to read "W. Kirwan".

William E. Kirwan  
Chancellor

WEK/weo

cc: Joann Boughman  
Teri Hollander  
Zakiya Lee  
Janice Doyle

1807  
University of Maryland,  
Baltimore

1856  
University of Maryland,  
College Park

1865  
Bowie State University

1866  
Towson University

1886  
University of Maryland  
Eastern Shore

1898  
Frostburg State University

1900  
Coppin State University

1925  
Salisbury University

1925  
University of Baltimore

1925  
University of Maryland  
Center for Environmental  
Science

1947  
University of Maryland  
University College

1966  
University of Maryland,  
Baltimore County

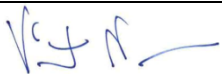


# UNIVERSITY OF MARYLAND

UNIVERSITY SENATE

1100 Marie Mount Hall  
College Park, Maryland 20742-4111  
Tel: (301) 405-5805 Fax: (301) 405-5749  
<http://www.senate.umd.edu>

## SENATE LEGISLATION APPROVAL

<b>Date:</b>	February 6, 2014
<b>To:</b>	Wallace D. Loh
<b>From:</b>	Vincent Novara Chair, University Senate 
<b>Subject:</b>	PCC Proposal to Establish a Master of Science in Marketing Analytics
<b>Senate Document #:</b>	13-14-23

I am pleased to forward for your consideration the attached legislation entitled, "PCC Proposal to Establish a Master of Science in Marketing Analytics." Marilee Lindemann, Chair of the Programs, Curricula, and Courses (PCC) Committee, presented the proposal. The University Senate approved the proposal at its February 5, 2014 meeting.

We request that you inform the Senate Office of your decision as well as any subsequent action related to your conclusion.

Enclosure: PCC Proposal to Establish a Master of Science in Marketing Analytics  
Senate Document # 13-14-23

VN/rm

- Cc: Mary Ann Rankin, Senior Vice President for Academic Affairs & Provost  
Reka Montfort, Executive Secretary and Director, University Senate  
Juan Uriagereka, Associate Provost for Faculty Affairs  
Terry Roach, Executive Assistant to the President  
Janet Turnbull, President's Legal Office  
Elizabeth Beise, Associate Provost for Academic Planning & Programs  
Sylvia B. Andrews, Academic Affairs  
Alex Triantis, Dean, Robert H. Smith School of Business  
Michael Marcellino, Assistant Dean, Robert H. Smith School of Business  
Anil Gupta, Professor, Robert H. Smith School of Business

Approved:   
Wallace D. Loh  
President

Date: 02-17-2014

**THE UNIVERSITY OF MARYLAND, COLLEGE PARK  
PROGRAM/CURRICULUM/UNIT PROPOSAL**

- Please email the rest of the proposal as an MSWord attachment to [pcc-submissions@umd.edu](mailto:pcc-submissions@umd.edu).

PCC LOG NO.

13032

- Please submit the signed form to the Office of the Associate Provost for Academic Planning and Programs, 1119 Main Administration Building, Campus.

**College/School: Robert H. Smith School of Business**

Please also add College/School Unit Code-First 8 digits: 01202900

Unit Codes can be found at: [https://hypprod.umd.edu/Html\\_Reports/units.htm](https://hypprod.umd.edu/Html_Reports/units.htm)

**Department/Program: Robert H. Smith School of Business**

Please also add Department/Program Unit Code-Last 7 digits: 1290101

**Type of Action (choose one):**

- |   |   |
|---|---|
| <input type="checkbox"/> Curriculum change (including informal specializations)     | <input checked="" type="checkbox"/> <i>New academic degree/award program</i>        |
| <input type="checkbox"/> Curriculum change for an LEP Program                       | <input type="checkbox"/> New Professional Studies award iteration                   |
| <input type="checkbox"/> <i>Renaming of program or formal Area of Concentration</i> | <input type="checkbox"/> New Minor  |
| <input type="checkbox"/> <i>Addition/deletion of formal Area of Concentration</i>   | <input type="checkbox"/> Request to create an online version of an existing program |
| <input type="checkbox"/> <i>Suspend/delete program</i>                              |   |

*Italics indicate that the proposed program action must be presented to the full University Senate for consideration.*

**Summary of Proposed Action:**

Convert Master of Science in Business and Management - Marketing Analytics Concentration to a Master of Science in Marketing Analytics

**Departmental/Unit Contact Person for Proposal:** \_\_\_\_\_

APPROVAL SIGNATURES - Please print name, sign, and date. Use additional lines for multi-unit programs.

1. Department Committee Chair \_\_\_\_\_
2. Department Chair \_\_\_\_\_
3. College/School PCC Chair \_\_\_\_\_
4. Dean \_\_\_\_\_
5. Dean of the Graduate School (if required) Shu Lu 2/18/14
6. Chair, Senate PCC Mansee 12/6/13
7. University Senate Chair (if required) \_\_\_\_\_
8. Senior Vice President and Provost Elizabeth J. Peise 8/28/14

**THE UNIVERSITY OF MARYLAND, COLLEGE PARK  
PROGRAM/CURRICULUM/UNIT PROPOSAL**

- Please email the rest of the proposal as an MS Word attachment to [pcc-submissions@umd.edu](mailto:pcc-submissions@umd.edu).

PCC LOG NO.

**13032**

- Please submit the signed form to the Office of the Associate Provost for Academic Planning and Programs, 1119 Main Administration Building, Campus.

**College/School:**

Please also add College/School Unit Code-First 8 digits: **01202900**

Unit Codes can be found at: [https://hypprod.umd.edu/Htm-l\\_Reports/units.htm](https://hypprod.umd.edu/Htm-l_Reports/units.htm)

**Department/Program:**

Please also add Department/Program Unit Code-Last 7 digits:1290901


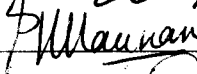
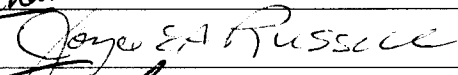
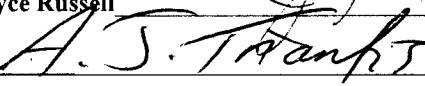
**Type of Action (choose one):**

- |  |   |
|--|---|
| <input type="checkbox"/> Curriculum change (including informal specializations)                | <input type="checkbox"/> <i>New academic degree/award program</i> |
| <input checked="" type="checkbox"/> <i>Renaming of program or formal Area of Concentration</i> | <input type="checkbox"/> New Professional Studies award iteration |
| <input type="checkbox"/> <i>Addition/deletion of formal Area of Concentration</i>              | <input type="checkbox"/> New Minor                                |
| <input type="checkbox"/> <i>Suspend/delete program</i>   | <input type="checkbox"/> Other                                    |

*Italics indicate that the proposed program action must be presented to the full University Senate for consideration.*

**Summary of Proposed Action:** The Robert H Smith School of Business (School) proposes launching a Master of Science in Marketing Analytics (MS in MA) program designed to provide students with the cutting-edge knowledge and skills necessary to successfully apply marketing analytics in business practice. Today's business environment has become increasingly data orientated and this program will prepare students to analyze these data sets. The school currently offers a Master's of Science in Business and Management with a concentration in Marketing. Unfortunately, there is no distinction between the concentrations on the diplomas or transcripts and we are limited in our ability to treat the programs differently. The creation of this formal degree program will provide us with an opportunity to better reflect the degree being earned and provide us with the ability to align our administrative activities with the market demands.

APPROVAL SIGNATURES - Please print name, sign, and date. Use additional lines for multi-unit programs.

1. Department Committee Chair Wendy Moo 
2. Department Chair P.K. Kannan 
3. College/School PCC Chair Joyce Russell 
4. Dean Alexander Triantis 
5. Dean of the Graduate School (if required) \_\_\_\_\_
6. Chair, Senate PCC \_\_\_\_\_
7. University Senate Chair (if required) \_\_\_\_\_
8. Senior Vice President & Provost \_\_\_\_\_

To: Betsy Beise

From: Anil Gupta

Subject: Degree name changes for MS in Business and Management

Dear Betsy:

The Smith School currently offers multiple internationally competitive Master of Science in Business degrees, including concentrations in Accounting, Information Systems, Marketing Analytics, and Supply Chain Management. The attached proposals are being submitted to request that we change the name of our current MS degree with concentrations to individual Masters of Science degrees. Offering degrees with the specific titles will better articulate the credentials of graduating students on the diploma and make them more competitive in all markets. The adjustment of these degree names will also provide us with an opportunity to align our administrative activities with the market demands instead of treating them in a similar manner.

We are submitting these proposals as a package for administrative efficiency. We felt this might be a more convenient approach since many of the questions raised will likely be applied to all four programs. If this approach is undesirable, we are certainly prepared to discuss them individually as well.

Please let us know if you need additional information or have any questions.

Sincerely,

Dr. Anil K. Gupta

Michael D. Dingman Chair & Professor of Strategy, Globalization & Entrepreneurship  
Smith School of Business, The University of Maryland

Email: [agupta@rhsmith.umd.edu](mailto:agupta@rhsmith.umd.edu)

Office: 301.405.2221

PROPOSAL FOR  
NEW INSTRUCTIONAL PROGRAM  
UNIVERSITY OF MARYLAND AT COLLEGE PARK, MARYLAND  
MASTERS OF SCIENCE IN MARKETING ANALYTICS (MSMA)

ROBERT H. SMITH SCHOOL OF BUSINESS

DEAN Alexander J. Triantis

**MASTERS OF SCIENCE IN MARKETING ANALYTICS**

Award to be offered Fall 2014



## **I. OVERVIEW and RATIONALE**

**A. Briefly describe the nature of the proposed program and explain why the institution should offer it. [You may want to refer to student demand, market demand for graduates, institutional strengths, disciplinary trends, synergy with existing programs, and/or institutional strategic priorities.]**

### **Goal and Contribution to the Strategic Plan**

The Robert H. Smith School of Business proposes launching a Masters of Science in Marketing Analytics (MSMA) program designed to provide students with the cutting-edge knowledge and skills necessary to successfully apply marketing analytics in business practice. Today's business environment has become increasingly data oriented. Online environments, customer loyalty programs and other points of contact between businesses and their customers are generating large volumes of data that businesses are struggling to analyze. One of the biggest challenges facing these organizations is the lack of analytical talent available in the market. In other words, our educational system is not training enough students with the necessary analytical capabilities.

Consistently, organizations have expressed frustration in hiring new employees who have both analytical skills and business skills. In particular, there is a need for analytically oriented students who have a conceptual understanding of customer behavior and marketing strategy as bridging the gap between analytics and business strategy has been a challenge. Students who complete the MSMA degree will possess the knowledge and skills to fill this gap.

The Robert H. Smith School of Business houses one of the strongest academic marketing departments in the world as well as the Center for Excellence in Service (CES) and the Center for Complexity in Business (CCB). The research and experience of the faculty are particularly suited to attract some of the brightest students in the world who are seeking a more thorough understanding of marketing analytics. Faculty and staff currently affiliated with the Robert H. Smith School of Business hold appropriate degrees in marketing, computer science and psychology that are relevant and necessary for the Masters of Science in Marketing Analytics degree.

The strategic plan of the Robert H. Smith School of Business states as its first objective the goal of "Growing future leaders to address global issues." The University of Maryland College Park mission statement sets a goal to "continue to build a strong, university-wide culture of graduate and professional education" and to provide knowledge-based programs and services that are responsive to the needs of the citizens of the state and the nation. Faculty and students in the Masters of Science in Marketing Analytics program will collaborate with businesses, non-profit organizations and government agencies to address current issues related to marketing analytics.

The School currently offers a Masters of Science in Business with a concentration in Marketing Analytics (MSB-MA). However, the diploma does not state the words "marketing analytics" on it. This degree name will strengthen the recognition of the degree and increase its attractiveness to a worldwide applicant pool. Offering a degree with the words "marketing analytics" in the title will clarify the content of the knowledge our students obtain. The creation of this degree will also provide greater opportunities to be flexible within our portfolio of Masters of Science degrees to uniquely address issues within each discipline rather than pooling all of them under the same Masters of Science in Business degree that is currently offered. Should this proposal be approved, we would like to offer existing students the opportunity to have their degree called a

Masters of Science in Marketing Analytics even though they were admitted to the MSB-MA program.

The School currently offers a joint MBA-MSB program for students and we would also seek to offer students the opportunity to enroll in a joint MBA-MSMA program. Such an opportunity enables our MBA students to further distinguish themselves in the MBA marketplace and the fact that the joint program would likewise have the phrase “Information Systems” in it would improve our ability to market these students.

This program is also an ideal path for some of our students to pursue PhD programs in marketing. Having the program entitled Masters of Science in Marketing Analytics will again likely improve the marketability of our students seeking to pursue a PhD specializing in marketing.

### **Market Demand for Graduates**

In light of the growing amount of data available to organizations, employers are looking for marketing analytics specialists who have a thorough understanding of mathematical and statistical models and the ability to rigorously apply these methods to business problems, particularly those related to customer behavior and marketing strategy. McKinsey & Company states, “There will be a shortage of talent necessary for organizations to take advantage of big data. By 2018, the United States alone could face a shortage of 140,000 to 190,000 people with deep analytical skills as well as 1.5 million managers and analysts with the know-how to use the analysis of big data to make effective decisions.”<sup>1</sup>

### **Student Demand**

**B. How big is the program expected to be? From what other programs serving current students, or from what new populations of potential students, onsite or offsite, are you expecting to draw?**

The inaugural year of the program attracted over 200 applications for 40 openings. Students take 30 credits in the program and have the ability to complete the program within one academic year. Applicants for the inaugural Class of 2014 have been strong with an average GMAT score of over 700 and average GPA of 3.4.

Most of the students we attract to this program are international, primarily from East Asia. The strategic plan for this program seeks to expand domestic enrollment, primarily by targeting students receiving Bachelor’s degrees in mathematics, statistics, economics, engineering and other STEM fields who are looking for an opportunity to apply their skill set to business and marketing.

## **II. CURRICULUM**

**A. Provide a full catalog description of the proposed program, including educational objectives and any areas of concentration.**

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<sup>1</sup> Manyika, J., Chui, M., Brown, B., Bughin, J., Dobbs, R., Roxburgh, C., Hung Byers, A. (2011). Big data: The next frontier for innovation competition, and productivity. McKinsey Global Institute.

Participants in the Master of Science in Business – Marketing Analytics program gain the cutting-edge knowledge and skills necessary to succeed in applying marketing analytics in business practice. This program specializes in marketing analytics and helps students benefit from businesses' increasing focus on the analysis of customer data, a trend fueled by the rapidly growing number of data sets enabled by various new technologies. The program provides an in-depth understanding of the mathematical and statistical models and tools needed for such customer analysis in the context of marketing problems. It is suitable for students with a strong background in quantitative disciplines (e.g., mathematics, statistics, engineering, etc.) who wish to adapt and apply to their skills to business and marketing.

**B. List the courses (number, title, semester credit hours) that would constitute the requirements and other components of the proposed program. Provide a catalog description for any courses that will be newly developed or substantially modified for the program.**

Students will enter the MSMA program with a Bachelor's degree. The proposed MSMA program requires 30 credit hours comprised of core courses (22 credits), application courses (6 credits), and an action learning project (2 credits).

#### **Core Courses**

Course descriptions are provided below.

**Market-Based Management (3 Credits)** The purpose of this course is to introduce students to the fundamentals of marketing. This course combines lectures, readings, case analyses and a competitive simulation. A significant part of the course involves a competitive computer-based simulation in which student teams leverage marketing data and metrics to make marketing decisions for an organization that is competing in a market against other student teams in the class.

**Customer Analysis (3 Credits)** This course focuses on the analysis of customer decision-making and how marketing strategy can be used to influence those decisions. The framework used is the buyer behavior model, in which concepts from psychology, sociology, and economics are applied to individual and organizational purchase decisions. Marketing strategies of leading firms in consumer products, technology, and services (including internet services) are analyzed using a variety of case study formats.

**Advanced Marketing Analytics (3 Credits)** This course deals with the analysis of marketing data needed for profitable marketing decisions. It teaches students advanced methods of marketing analysis for marketing decisions, including choice and count data models, joint analysis of consumers' choice, quantity and timing decisions, mixture and mixture regression models, and conjoint analysis, all using data-based cases and SAS software. Applications are in the areas of strategic marketing, marketing segmentation, eye tracking for advertising effectiveness, new product development, sales promotion analysis, pricing, design of marketing mix, and direct marketing.

**Statistical Programming (3 Credits)** This course provides students with a foundation in probability and statistics with a focus on business applications. It also gives students a foundation for thinking in both likelihood and Bayesian frameworks. The course teaches students the basics of SAS, as well as its use in statistical analysis and statistical programming. Also addressed are

basic SAS language structure, data management, OLAP, enterprise miner, statistical analysis, writing procedures.

**Business Communications (2 Credits)** This course teaches students how to communicate quantitative information effectively. The course will focus on developing written, spoken and presentation skills.

**Business Ethics (2 Credits)** This course is a study of the standards of business conduct, morals and values as well as the role of business in society. Students will consider the sometimes conflicting interests of and claims on the firm and its objectives.

**Database Science (3 Credits)** This class provides an introduction to data science and the basic concepts of database management. The course also provides an overview of the various sources of in house data that are available to many organizations. Students will learn how to work with click stream, scanner panel and social media data. Geo-demographic datasets will be discussed and explored, and techniques for data-fusion will receive ample attention.

**Marketing Research and Analysis (3 Credits)** This course provides a review of primary data collection methods for marketing data. Students will learn how to design and implement effective confirmatory research. Both direct methods such as surveys and indirect methods such as experiments will be covered. In this hands-on course, students will design and conduct research with target customers, analyze the data, and then present their results to decision makers.

### **Application Courses**

All courses listed below are 2 credit courses. Students can elect any 3 to fulfill the 6 credit requirement.

**Customer Equity Management** This course focuses on managing customers of a business, whether in B2B or B2C space, as a portfolio of equity. It provides an understanding of the current and future value of customers to the business. Topics include selective acquisition, development, and retention of customers using latest developments in information technology.

**Market Forecasting** In this course, students will learn a number of market forecasting methods, each appropriate for different contexts. The majority of this course focuses on quantitative modeling techniques based on established statistical methods. We also cover non-statistical methods that are often used when empirical data is scarce. This is a very hands-on class where students will apply the forecasting methods learned to real data.

**Pricing Analytics and Strategies** The course will focus on the economic and behavioral aspects of pricing and the evaluation of innovative pricing practices such as price matching, customized pricing, bundle pricing and product line pricing. The course will cover both B2B, B2C, online and offline markets. Instruction will be through a mix of case studies, pricing simulation games, hands-on exercises, practitioner guest lectures and discussions.

**Retail Analytics** Planning and implementing retail marketing strategies often involve sophisticated analytics. This course will teach the analytical tools needed to develop retail strategies. Both store and non-store (catalog, Internet) retailing are discussed. Also, students will learn how to evaluate the impact of environmental trends in the consumer market, competition, the economy and technology on retail strategy in the U.S. and global market.

**Web Analytics** This course examines the process of developing, implementing and analyzing strategies for successfully marketing a variety of existing and potential products and services on the Internet. Special attention is devoted to the tools and techniques unique to the electronic media.

**Action Learning Project**

This is a 2 credit project based course where students will analyze marketing data, report their findings and provide appropriate recommendations.

**Sample Student Schedule**

Below is a table showing how a typical MSMA student can complete the required coursework over a one-year period as a full-time student.

**Student Schedule for Full-time MSMA, Masters of Science in Marketing Analytics**

Fall 1	Fall 2	Winter	Spring 1	Spring 2
Market-Based Management*		Business Communications*	Data Science*	
Customer Analysis*		Business Ethics*	Marketing Research and Analysis*	
Advanced Marketing Analytics*			Application 1	Application 3
Statistical Programming*			Application 2	Action Learning Project

\* Core Course

**C. Describe any selective admissions policy or special criteria for students selecting this field of study.**

Applicants to the MSMA program must have completed all of the requirements for a baccalaureate degree prior to their acceptance into the program, with particular emphasis on the students having a strong background in quantitative disciplines. All applicants must submit: Transcripts from all undergraduate and graduate institutions that have been previously attended, Graduate Record Examination (GRE) scores or the Graduate Management Admissions Test (GMAT) scores, a complete online application form that includes a written essay articulating qualifications and motivation for pursuing advanced education, two letters of recommendation, from supervisors or from professors competent to judge the applicant’s probability of success in graduate school, and two official transcripts from all educational institutions previously attended.

In addition, an admissions interview may be required. After initial screening, the Admissions Office may select candidates for interviews which may be done in person or by telephone. Proof of English language proficiency (TOEFL or IELTS official scores) is also required unless the applicant has received an undergraduate or graduate degree from a select list of countries. For international students needing an F1 visa, a completed certification of finance form and supporting financial documentation are required.

In addition to Graduate School requirements, admission decisions for the MSMA program will be based on the quality of previous undergraduate and graduate course work (if applicable), the strength of Graduate Record Examination scores or the Graduate Management Admissions Test scores, the relevance of prior work and research experience, and the congruence of professional goals with those of the program. Students should submit application materials for the fall semester by April 1. This program does not accept applications for Spring semester admission.

### **III. STUDENT LEARNING OUTCOMES AND ASSESSMENT**

**List the program's learning outcomes and explain how they will be measured and assessed**

<b>Learning Outcome 1</b>	Students will demonstrate a clear understanding of the basic concepts of Marketing Strategy, Consumer Behavior and Marketing Research and Analytics.
Measure:	Students will be required to pass a core set of classes in these areas.
Criterion:	At least 90% of students will receive a rating of "Satisfactory" or better from the Academic Director, who will review their performance in the core classes. The Academic Director will meet with students rated below "Satisfactory" to help improve their performance or determine their continued participation in the program.
Assessment:	Every Year, starting in the 2013-2014 academic year.
<b>Learning Outcome 2</b>	Students will demonstrate critical reasoning, written and oral communication skills.
Measure:	Students must take at least one class that focuses on developing their communications skills.
Criterion:	At least 90% of students will receive a rating of "Satisfactory" or better from the course instructor.
Assessment:	Every Year, starting in the 2013-2014 academic year.
<b>Learning Outcome 3</b>	Students will demonstrate an understanding of business ethics and the ethical issues associated with managing and analyzing data, with a particular focus on the ethics of data privacy.
Measure:	Students must take one business ethics course.

Criterion: At least 90% of students will receive a rating of “Satisfactory” or better from the course instructor.

Assessment: Every Year, starting in the 2013-2014 academic year.

**Learning Outcome 4** Students will demonstrate their ability to work effectively with other members of a team in the preparation of a group project.

Measure: Students must prepare group projects as part of a class.

Criterion: At least 90% of students will receive a rating of “Satisfactory” or better from the course instructor.

Assessment: Every Year, starting in the 2013-2014 academic year.

**Learning Outcome 5** Students will demonstrate an ability to analyze big data sets with a variety of computer programs, including SPSS, SAS, and R.

Measure: Students will be required to pass classes in which these packages are taught.

Criterion: At least 90% of students will receive a rating of “Satisfactory” or better from the Academic Director, who will review their performance in the core classes teaching these software packages.

Assessment: Every Year, starting in the 2013-2014 academic year.

The Master in Marketing Analytics degree is designed to be a lock-step program that introduces the students to the basic skills needed for marketing analytics, theoretical frameworks needed to understand marketing data and strategy and application areas in which marketing analytics is relevant.

#### **IV. FACULTY AND ORGANIZATION**

**A. Who will provide academic direction and oversight for the program? [This might be a department, a departmental subgroup, a list of faculty members, or some other defined group.]**

Primary oversight of this program will be provided by a faculty member assigned as the director of the program. A committee of faculty members has been created to address issues including admissions, academic policies, student activities, and internship / placement opportunities. The program would also be overseen by the chair of the marketing department and the Dean’s office.

The marketing department of the Robert H Smith School of Business currently has 23 FTE faculty. Nineteen of these are tenure/ tenure track. All of these nineteen faculty have doctoral degrees in marketing, psychology, or computer science. The four additional teaching faculty also have graduate degrees in related fields.

## **Marketing Faculty Expected to Teach in the Proposed MSMA Program**

**Wendy W. Moe**, PhD, Director of the MS in Marketing Analytics program and Associate Professor of Marketing.

Teaching / Research: Online Marketing, Web Analytics, Clickstream Analysis, and Social Media Intelligence.

Courses: Market Based Management, Business Communications, Forecasting

**Michel Wedel**, PhD, PepsiCo Professor of Consumer Science

Teaching / Research: Consumer Science, Eye Tracking Research, Advanced Statistical and Econometric models for marketing problems.

Courses: Marketing Research and Analysis

**P.K. Kannan**, PhD, Ralph J. Tyser Professor of Marketing Science, Chair of the Smith Marketing Department.

Teaching / Research: Online Attribution Models, Customer Relationship Management, Data-driven pricing and marketing models.

Courses: Statistical Programming

**Roland Rust**, PhD, Distinguished University Professor and David Bruce Smith Chair in Marketing.

Teaching / Research: Service Marketing, Customer Lifetime Value Analysis

Courses:

**Michael Trusov**, PhD, Assistant Professor of Marketing.

Teaching / Research: Internet Marketing, Search Data Analysis, Text Analysis, Data Mining

Courses: Web Analytics

**Yogesh Joshi**, PhD, Assistant Professor of Marketing.

Teaching / Research: Product & Brand Strategies, Customer centric innovation, New product development.

Courses: New Product Analytics

**Jie Zhang**, PhD, Associate Professor of Marketing and the Harvey Sanders Fellow of Retail Management.

Teaching / Research: Retail Management, Internet Marketing, Promotion Strategies, Loyalty Programs.

Courses:

**William Rand**, PhD, Assistant Professor of Marketing and Computer Science and Director of the Center for Complexity in Business.

Teaching / Research: Information Diffusion on Social Media, Machine Learning, Computational Modeling.

Courses: Database Marketing

**Rosellina Ferraro**, PhD, Associate Professor

Teaching / Research: Consumer Behavior, Information Processing.

Courses: Business Ethics I & II

**Rebecca Hamilton**, PhD, Associate Professor



Teaching / Research: Consumer decision making, Consumer Behavior, Brand Management, Research Methods.

Courses: Customer Analysis

**Liye Ma**, PhD, Assistant Professor

Teaching / Research: Internet & Social Media, Marketing Research Methods.

Courses: Database Marketing

**Joydeep Srivastava**, PhD, Ralph J. Tyser Professor of Marketing and Consumer Psychology

Teaching / Research: Managerial & Consumer Decision Making.

Courses: Marketing Data Collection

**B. If the program is not to be housed and administered within a single academic unit, provide details of its administrative structure. This should include at least the following:**

Not applicable. All classes will be housed and administered within the Robert H Smith School of Business

## **V. OFF CAMPUS PROGRAMS**

**A. If the program is to be offered to students at an off-campus location, with instructors in classrooms and/or via distance education modalities, indicate how student access to the full range of services (including advising, financial aid, and career services) and facilities (including library and information facilities, and computer and laboratory facilities if needed) will be assured.**

Classes will be held in our facility at the Universities of Shady Grove. Those facilities already contain adequate classrooms, computer facilities, study rooms, and administrative space for academic advising, career advising, and student activity support.

**B. If the program is to be offered mostly or completely via distance education, you must describe in detail how the concerns in Principles and Guidelines for Online Programs are to be addressed.**

Currently, the program is structured to be entirely delivered in a traditional classroom setting. Over time, we may evaluate online learning opportunities, but nothing is currently scheduled. Should we move towards some courses being offered online, all online courses would adhere to the policies and concerns outlined in the University of Maryland document, Principles and Guidelines for Online Programs.

Program Development, Control and Implementation Would Be By Faculty - The faculty would have overall control over the design, development, and will have the overall bulk of any online academic instruction. Smith school technical support personnel would be available, as well as agreements with the off-campus sites for technical support during classroom hours. Support will be available to faculty during course development, as well as during the offering of the program.

## **VI. OTHER ISSUES**

**A. Describe any cooperative arrangements with other institutions or organizations that will be important for the success of this program.**

Not applicable. All aspects of the program from admissions to academic programming to career advising will be provided by the Robert H Smith School of Business. While the program will reach out to local companies and institutions for guest speakers, internship opportunities, experiential learning projects, and job placement, no particular relationship is pivotal to the success of the program.

**B. Will the program require or seek accreditation? Is it intended to provide certification or licensure for its graduates? Are there academic or administrative constraints as a consequence?**

The University of Maryland's Robert H. Smith School of Business is already accredited by the AACSB (American Association of Collegiate Schools of Business). No accreditation is sought for this individual program.

**VII. COMMITMENT TO DIVERSITY**

**Identify specific actions and strategies that will be utilized to recruit and retain a diverse student body.**

The Robert H. Smith School of Business community is multifaceted at every level – students, staff and faculty represent a diverse blend of backgrounds, nationalities, ethnicities and experiences. About a dozen Smith School and student clubs are focused on bringing members together who have similar interests in gender, nationality, religion, and sexual orientation.

To attract the most diverse population possible for the proposed Masters of Science in Marketing Analytics program, Smith School recruiting staff will focus on domestic efforts. These efforts will be targeted at recruiting U.S. minorities and American women of all ethnicities.

Current efforts include:

- Representing Masters programs in U.S. MBA and Masters Fairs and Tours
- Representing Masters programs in International MBA and Masters Fairs and Tours
- Online Chats
- U.S. College Visits
- International College Visits
- GMASS-based Mailings
- GRE-based Mailings
- Direct Mail
- Email Campaigns
- Outreach to College and Campus Organizations and Clubs
- Participating in Career/Graduate Study Panels or Workshops
- Presentations at Professional Conferences
- Creation of "Leap Your Career Forward" for Current UMD Students Looking At MBA and Masters Study Post-Undergraduate Studies (An Annual Event)
- Advertising in UMD Campus Newspapers
- Masters Only Education Fairs (Fall And Spring) Throughout the U.S.
- Participation in a Masters-focused Business School Alliance
- Participant in Graduate Business Education Events Targeted for Underrepresented Populations, Particularly U.S. Minorities and Women

Future efforts include:

- Including Master's Level Programming in Marketing Content Targeted to U.S. Military/Veterans
- Outreach to College Organizations in the Washington, D.C. Area
- Enhancement of Website for All Masters Programs
- Inclusion of Spotlight and Vignettes of Masters Alumni and Current Students who Reflect Diversity
- Participation in Events Targeted for Women Seeking Graduate Study (General And Non-MBA Based Events)
- Social Media and Online Advertising within U.S. Markets
- Partnerships with Academic Testing Centers and Overseas Advisors For International Graduate Study
- Marketing Targeting Young UMD Alumni and Young University Of Maryland System Alumni

## **VIII. REQUIRED PHYSICAL RESOURCES**

The proposed Masters of Science in Marketing Analytics (MSMA) program replaces the existing Masters of Science in Business with a concentration in Marketing Analytics (MSB-MA) degree currently offered. The proposed program can be implemented in accordance with Section 11 206.1 in which programs developed under this provision can be implemented within existing resources of the campus. In proceeding with the submission of this program, the institution's president certifies that no new general funds will be required for the implementation of this master's-level program.

### **A. Additional library and other information resources required to support the proposed program. You must include a formal evaluation by Library staff.**

The evaluation is attached.

### **B. Additional facilities, facility modifications, and equipment that will be required. This is to include faculty and staff office space, laboratories, special classrooms, computers, etc.**

As this proposed program replaces a current program and we do not at this time anticipate growing the program beyond its current scale, no additional facilities or facility modification is required. The School has adequate space in Van Munching Hall and in our Shady Grove location to house current faculty and students in the proposed program. No additional classrooms or computer laboratories are required.

### **C. Impact, if any, on the use of existing facilities and equipment. Examples are laboratories, computer labs, specially equipped classrooms, and access to computer servers.**

See response to VIII.B above.

## **IX. RESOURCE NEEDS and SOURCES**

**Describe the resources that are required to offer this program, and the source of these resources. Project this for five years. In particular:**

**A. List new courses to be taught, and needed additional sections of existing courses. Describe the anticipated advising and administrative loads. Indicate the personnel resources (faculty, staff, and teaching assistants) that will be needed to cover all these responsibilities.**

As this proposed program replaces a current program and we do not at this time anticipate growing the program beyond its current scale, no additional courses or changes in advising or administrative workload is required.

**B. List new faculty, staff, and teaching assistants needed for the responsibilities in A, and indicate the source of the resources for hiring them.**

Faculty resources of the Robert H Smith School of Business and in particular the marketing department of the School (as described herein) are adequate to cover the size of the proposed MSMA program. Approval of this proposal would not alter the responsibilities of the faculty beyond those already generated by the MSB-MA program that this proposal seeks to replace.

**C. Some of these teaching, advising, and administrative duties may be covered by existing faculty and staff. Describe your expectations for this, and indicate how the current duties of these individuals will be covered, and the source of any needed resources.**

As described above, teaching, advising, and administrative duties will be handled by existing faculty members (who are already teaching and conducting research on topics related to marketing analytics).

**D. Identify the source to pay the for the required physical resources identified in Section VIII. above.**

No additional resources are required.

**E. List any other required resources and the anticipated source for them.**

Not applicable.

**F. Provide the information requested in [Table 1](#) and [Table 2](#) (for Academic Affairs to include in the external proposal submitted to USM and MHEC).**

Given that this degree replaces a degree already offered, there are no incremental revenues or expenses.

**Appendix 1: Peer Comparisons – Degree Name of Marketing Analytics Program offered by MBA Ranked Peers**

<b>University</b>	<b>Degree Name of Marketing Analytics Program</b>
University of Georgia	Master of Marketing Research
DePaul University	M.S. in Marketing Analytics
University of Texas, Arlington	M.S. in Marketing Research
Tilburg University	MSc Marketing Research
University of Wisconsin	MBA in Marketing Research

**Appendix 2: Peer Comparisons – Curriculum Content Comparisons of MS Marketing Analytics and MS Marketing Research Programs**

<b>University Degree</b>	<b>Curriculum/Required Classes</b>
<b>University of Georgia Masters of Marketing Research</b>	1 yr. program 39 Credit Hours Req.  <ul style="list-style-type: none"> <li>• Introduction to Statistics Methods</li> <li>• Data Collection Methods</li> <li>• Qualitative Research</li> <li>• Consumer Behavior</li> <li>• Introductory Econometrics</li> <li>• Applications of MR Techniques I &amp; II</li> <li>• Advertising &amp; Promotion Management</li> <li>• Marketing Strategy</li> <li>• Marketing Research Project I &amp; II</li> <li>• Applied Multivariate Methods</li> <li>• Discrete Choice and Conjoint Analysis</li> <li>• Database Marketing &amp; Customer Relationship Management</li> </ul>

University Degree	Curriculum/Required Classes
<p><b>DePaul University Masters of Science in Marketing Analytics</b></p>	<p><b>Require 12 courses to graduate. 7 core courses and 5 electives (2 from marketing concentration, 3 from analytical group)</b></p> <p><i>Core</i></p> <ul style="list-style-type: none"> <li>• Decisions in Marketing Management</li> <li>• Market Research</li> <li>• Advanced Market Research</li> <li>• Tools for Marketers</li> <li>• Marketing Strategies and Planning</li> <li>• Consumer Behavior</li> <li>• Behavior in Organizations</li> </ul> <p><i>Marketing Concentration</i></p> <ul style="list-style-type: none"> <li>• Qualitative Market Research</li> <li>• Precision Marketing</li> <li>• Principles of CRM (Customer Relationship Marketing)</li> <li>• Sales Strategy and Technology</li> <li>• Interactive/Internet Marketing</li> </ul> <p><i>Analytical Group</i></p> <ul style="list-style-type: none"> <li>• Data Analysis and Regression</li> <li>• Advanced Data Analysis</li> <li>• Time Series Analysis and Forecasting</li> <li>• Warehousing and Data Mining</li> <li>• Knowledge Discovery Technologies</li> <li>• Web Mining for Business Intelligence</li> </ul>

University Degree	Curriculum/Required Classes
<b>University of Texas, Arlington Masters of Science in Marketing Research</b>	<p><i>Foundation Courses (Req.)</i></p> <ul style="list-style-type: none"> <li>• Accounting Analysis I &amp; II</li> <li>• Econ. Analysis</li> <li>• Marketing</li> <li>• Management</li> <li>• Financial Management</li> <li>• Advanced Statistical Methods</li> </ul> <p><i>Advanced Courses</i></p> <ul style="list-style-type: none"> <li>• Buyer Behavior and Creative Problem Solving</li> <li>• Research for Marketing Decisions</li> <li>• Product Management</li> <li>• Marketing Information Management</li> <li>• Qualitative Research</li> <li>• Marketing Strategy</li> <li>• Advanced Research Analysis I &amp; II</li> <li>• Advanced Topics in Marketing Research</li> <li>• Marketing Models I</li> </ul>



University Degree	Curriculum/Required Classes
<p><b>Tilburg University</b>  <b>MSc Marketing</b>  <b>Research</b></p>	<p><b><i>Strategic MR Track</i></b></p> <ul style="list-style-type: none"> <li>• Intro to Research in Marketing</li> <li>• Brand Mgmt.</li> <li>• Marketing Channel Management</li> <li>• Marketing Communication</li> <li>• Strategic Marketing Management</li> <li>• Advanced Marketing Research (I &amp; II)</li> <li>• Research in Social Media</li> <li>• Market Assessment</li> <li>• Experimental Research</li> <li>• Marketing Information Mgmt.</li> <li>• Panel Data Analysis of Microeconomic Decisions</li> <li>• Simulation</li> <li>• Marketing Models</li> <li>• Microeconomics</li> <li>• International Marketing</li> </ul> <p><b><i>Quantitative MR Track</i></b>  <b>Required</b></p> <ul style="list-style-type: none"> <li>• Intro to Research in marketing</li> <li>• Market Assessment</li> <li>• Panel Data Analysis</li> </ul> <p><b>Electives</b></p> <ul style="list-style-type: none"> <li>• Advanced Marketing Research (I &amp; II)</li> <li>• Marketing Models</li> <li>• Simulation</li> <li>• Micro-economics</li> <li>• Structural equation models</li> <li>• Empirical Industrial organization</li> <li>• Survey methodology</li> <li>• Quantitative Models in Marketing</li> <li>• Marketing Information Management</li> </ul>

<b>University Degree</b>	<b>Curriculum/Required Classes</b>
<b>University of Wisconsin MBA in Marketing Research</b>	<ul style="list-style-type: none"><li>• Marketing Research</li><li>• Developing New Products</li><li>• Qualitatively-Based Marketing Insights</li><li>• Current Topics Seminar (3 required)</li><li>• Consumer Behavior</li><li>• Scaling, Factor &amp; Cluster Analysis</li><li>• Quantitative Models in Marketing</li></ul>